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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,590	04/16/2004	John F. Maselter	52324/MEG/M896	1770
23363	7590	12/07/2004	EXAMINER	
CHRISTIE, PARKER & HALE, LLP			WRIGHT, ANDREW D	
PO BOX 7068				
PASADENA, CA 91109-7068			ART UNIT	PAPER NUMBER

3617

DATE MAILED: 12/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/826,590

Applicant(s)

MASELTER, JOHN F.

Examiner

Andrew Wright

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 and 13-15 is/are allowed.
- 6) ☒ Claim(s) 12, 16-25 and 27-31 is/are rejected.
- 7) ☒ Claim(s) 26 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the bevel gears (claim 3), the maintenance position wherein all of the housing is above the water line (claims 7 and 20), the substantially horizontal position (claims 8 and 21), the propeller shaft above the waterline (claims 9 and 22), the stern drive completely above the waterline (claims 10 and 23), the bellows enclosing the gear set and u-joint (claims 12 and 25), and the cooling system connected to the engine and the water pump connected to the cooling system (claims 13 and 29) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of

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the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 12 and 25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The disclosure does not enable "a bellows enclosing the first set of gears and the universal joint". The specification discloses a bellows (pg 9) and figure 2 only schematically shows it. A bellows that encloses a u-joint is well known and common. A bellows that encloses both a u-joint and a gear set is not commonly seen in the art. There is not sufficient description of how the bellows encloses both and still remains operative (i.e. doesn't get snagged in the moving parts.)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 16, 17, 24, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodbeck et al. (US 5,340,345) in view of Liekhaefer et al. (US 3,136,281). Regarding claim 16, Brodbeck shows a marine vessel with a hull and transom. An engine is within the hull. A stern drive is attached to the transom. A waterline is shown at (112). Brodbeck discloses but does not show a drive shaft in housing (110) (column 3, lines 35-48). The drive shaft in the housing (110) necessarily passes through the transom above the waterline, as shown in figure 1. Brodbeck discloses but does not show gears and shafts in the stern drive (column 3, lines 35-48). Brodbeck does not specifically show a vertical shaft and propeller shaft. Kiekhaefer shows a stern drive attached to a transom. A drive shaft passes through the transom and drives a vertical shaft (27), and a propeller shaft (24) that are disposed within a housing (20). The propeller shaft extends out of the housing where the propeller is attached. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Brodbeck by using the vertical shaft and propeller shaft arrangement shown by Kiekhaefer. The motivation would be to use what is common in the art for the unspecified elements of Brodbeck.

6. Claim 17, Brodbeck and Kiekhaefer both show a mounting plate attached to the transom. Brodbeck shows the mounting plate attached above the waterline.

7. Claim 24, Kiekhaefer shows a universal joint and gear set.

8. Claim 28, Brodbeck discloses but does not show any shafting. Kiekhaefer shows an inboard engine with an engine shaft that is coaxially connected to a drive shaft that passes through the transom. Therefore it would have been obvious to one having

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ordinary skill in the art at the time the invention was made to modify Brodbeck by using the engine shaft and drive shaft arrangement shown by Kiekhaefer. The motivation would be to use what is common in the art for the unspecified elements of Brodbeck.

9. Claims 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodbeck in view of Kiekhaefer as applied to claim 16 above, and further in view of Ackerman (US 3,256,851). Brodbeck does not disclose an actuator. Ackerman shows a marine vessel with a stern drive attached to the transom. Ackerman shows an actuator (87) that is disposed between the housing of the stern drive and the transom. The actuator provides the commonly known tilting of the stern drive. It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Brodbeck by using the actuator shown by Ackerman. The motivation would be to provide a tilting function for the stern drive.

10. Claim 19, the structural arms (38) are cantilever members.

11. Claim 20, the housing can be moved to a position below the waterline. The housing can also be moved to a position where it is generally coaxial with the shaft that passes through the transom. On Brodbeck this would result in the housing being above the waterline.

12. Claim 21, the housing can be moved between vertical and horizontal (fig 1).

13. Claim 22, the housing can also be moved to a position where it is generally coaxial with the shaft that passes through the transom. On Brodbeck this would result in the propeller shaft being above the waterline.

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14. Claim 23, the housing can also be moved to a position where it is generally coaxial with the shaft that passes through the transom. On Brodbeck this would result in the stern drive being above the waterline.

15. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brodbeck in view of Kiekhaefer as applied to claim 16 above, and further in view of Hosoi (US 5,647,780). Kiekhaefer shows a bellows that covers the u-joint. Kiekhaefer does not show that the bellows covers both the u-joint and a gear set. Hosoi shows a bellows (38) that covers both a u-joint and a gear set. It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Brodbeck by the bellows shown by Hosoi. The motivation would be to provide enhanced water resistance for the internal parts of the transmission.

16. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brodbeck in view of Kiekhaefer as applied to claim 16 above, and further in view of Clerk (US 2,905,133). Brodbeck does not disclose pulleys and a belt between the engine and the upper driveshaft. Clerk shows discloses an engine disposed within a hull and a stern drive outside the hull. The engine has an output shaft that is connected to first pulley (44). Second pulley (45) is connected to the upper drive shaft. Belt (46) connects the two pulleys. It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Brodbeck by pulleys and belt shown by Clerk. The motivation would be to attach the engine to the upper drive shaft in a way that is known in the art.

17. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brodbeck in view of Kiekhaefer as applied to claim 16 above, and further in view of Ford (US 4,713,029). Brodbeck does not disclose a cooling system for the engine. It is well known and common to provide water cooling for marine engines. Ford shows an engine disposed within a hull. The engine has a cooling system, water pump (106), and water inlet (110) that is disposed through the hull. It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Brodbeck by using the cooling system shown by Ford. The motivation would be to provide water cooling for the engine to prevent overheating.

18. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brodbeck in view of Kiekhaefer as applied to claim 16 above, and further in view of Griffiths et al. (US 6,299,496). Brodbeck does not disclose an exhaust system. Griffiths shows an engine within a hull. The engine has an exhaust conduit that terminates at the transom. It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Brodbeck by using the exhaust system shown by Griffiths. The motivation would be to remove harmful and noxious exhaust from the hull interior.

19. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brodbeck in view of Kiekhaefer and Griffiths as applied to claim 30 above, and further in view of Bland et al. (US 6,406,344). Brodbeck does not disclose a muffler. Bland shows an engine within a hull. The engine has an exhaust conduit that extends thorough the transom, like that of Griffiths. Bland shows a muffler between the engine and the

transom. It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Brodbeck by using the muffler shown by Bland. The motivation would be to attenuate noise of the exhaust system to make the ride more comfortable for users and to comply with noise regulations.

Allowable Subject Matter

20. Claims 1-11 and 13-15 are allowed.

21. Claim 26 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Newman et al. ('413) shows an engine with a stern drive with the drive shaft passing through the transom above the waterline.

23. Any inquiry concerning this communication should be directed to examiner Andrew D. Wright at telephone number (703) 308-6841. The examiner can normally be reached Monday-Friday from 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, S. Joe Morano, can be reached at (703) 308-0230. The fax number for official communications is 703-872-9306. The fax number directly to the examiner for unofficial communications is 703-746-3548.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Andrew D. Wright
Patent Examiner
Art Unit 3617

AW 12/3/04
**ANDREW D. WRIGHT
PRIMARY EXAMINER**